Biomass Program

Integrated Biorefineries R&D

North Country Hospital Biomass Conversion And Cogeneration Project

In 2002, the Vermont Community Development Program funded a feasibility study to evaluate the best options for implementing a renewable energy system to meet the heat and power needs of the North Country Hospital in Vermont. The study recommended that two gasifiers be installed with two 200 horsepower, 150 psi Hurst boilers (one is already in place) and two 150 kW steam turbines. The Chiptec system would gasify readily available wood chips to produce heat and power.

This Congressionally-mandated project is funding the purchase and installation of a Chiptec C-14 gasifier, one 500 hp, 300 psi Hurst boiler, and one 265 kW steam turbine to the hospital's existing heat and power generation systems. The estimated cost savings of the renewable system over a conventional heat and power generating system is $248,000 per year at a chip purchase price of $9 per ton.

R&D Pathway

The principle investigator will purchase and install a Chiptec C-14 gasifier, one 500 hp, 300 psi Hurst boiler, and one 265 kW steam turbines. Also included in the project are an addition to the existing boiler room and a concrete bunker to accept the wood chip inventory.

Chiptec C-Series Gasifier

Benefits

- **Convert wood chips into heat and power**
- **Reduce energy costs for North Country Hospital**

Applications

This project will help the North Country Hospital reduce its energy costs by implementing a wood chip gasification system.

Project Partners

North Country Hospital

Project Period

FY 2004 – FY 2005

For more information contact:

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Visit the Web site for the Office of the Biomass Program (OBP) at www.eere.energy.gov/biomass.html

September 2004